REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application is anticipated under the provisions of 35 U.S.C. § 102. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIMS 1-48 UNDER 35 U.S.C. § 102

1. Claims 1, 8-11, 15, 22-24, 30-34, 37, 43 and 44

The Examiner has rejected claims 1, 8-11, 15, 22-24, 30-34, 37, 43 and 44 under 35 U.S.C. §102(b) as being anticipated by the Senn et al. patent (United States Patent No. 6,338,030, issued on January 8, 2002, hereinafter "Senn"). In response, the Applicants have amended independent claims 1, 15, 23, 24 and 37 from which claims 8-11, 22, 24, 30-34 and 43 depend, in order to more clearly recite aspects of the present invention. Additionally, the Applicants have cancelled claim 44.

Senn teaches a processor-controlled measuring device, including a measuring unit controlled by a control arrangement. The control arrangement includes a processor on which a measuring unit control program runs for implementing the functionalities of the measuring device. The processor of the control arrangement communicates with an external processor to exchange measurement data (produced by the measuring device) and control data for controlling the processor of the control arrangement.

The Examiner's attention is directed to the fact that Senn fails to disclose or suggest the novel invention of a spectrophotometer including a switch for selectively holding data (*e.g.*, for autonomous local processing) or transmitting data (*e.g.*, for assisted remote processing), as claimed in Applicants' independent claims 1, 15, 23, 24 and 37. Specifically, Applicants' claims 1, 15, 23, 24 and 37 positively recite:

> 1. A communication system, comprising:
> a spectrophotometer having a network communication interface for communicating with a network, wherein said spectrophotometer operates in at least one mode; and
> a remote processor for communicating information directly with said

spectrophotometer via said network,

wherein the spectrophotometer further comprises:

a processor for communicating directly with said remote processor via said network communication interface; and

a switch for selectively managing measured data in accordance with said at least one mode. (Emphasis added)

15. A method for exchanging information between a spectrophotometer and a remote processor, comprising:

providing a spectrophotometer with a network communication interface for communicating with a network, wherein said spectrophotometer operates in at least one mode; and

providing a remote processor for communicating information directly with said spectrophotometer via said network,

wherein the spectrophotometer further includes a switch for selectively managing measured data in accordance with said at least one mode. (Emphasis added)

23. A color measuring apparatus operating in at least one mode, comprising:

a spectrophotometer including a switch for selectively managing measured data in accordance with said at least one mode;

a processor; and

a network communication interface for allowing said color-measuring apparatus to communicate directly with a remote processor. (Emphasis added)

24. A spectrophotometer operating in at least one mode, comprising

spectrophotometer electronics;

a switch for selectively managing measured data in accordance with said at least one mode;

a processor; and

a network communication interface for allowing said spectrophotometer to communicate information directly with a remote processor. (Emphasis added)

37. A method of operating a spectrophotometer, comprising

providing a network communication interface for allowing said spectrophotometer to communicate information directly with a remote processor; and

forwarding and receiving measured information directly with said remote processor, said forwarding being selectively performed via a switch in accordance with at least one mode of said spectrophotometer. (Emphasis added)

Applicants' invention is directed to a method and apparatus for exchanging color measurement and diagnostic information over a network. Traditionally, color measurement devices such as spectrophotometers are controlled to perform instrument calibration and reflectance measurements via a local connection to a personal computer (PC). A drawback of such an arrangement is that all calibration and diagnostic data is maintained locally (*e.g.*, on the PC), without any central monitoring. Moreover, such an arrangement makes it difficult to install software and/or firmware updates for the measurement device – typically this requires manual update by a service technician.

The present invention provides a method and apparatus for exchanging color measurement and diagnostic information over a network. One embodiment system for calibrating a spectrophotometer according to the present invention includes a spectrophotometer and a remote server or processor connected via a network connection, where the spectrophotometer includes a network communication interface for facilitating the network connection. The network connection allows the spectrophotometer to communicate with the remote processor for diagnostic and measurement purposes; however, the spectrophotometer may also perform these functions autonomously (*e.g.*, without the aid of the remote processor) in accordance with a given mode of operation. To this end, the spectrophotometer further includes a switch (*e.g.*, as discussed in paragraph [0039] of the disclosure) that enables the spectrophotometer to selectively "hold" (*e.g.*, save locally) or "transmit" (*e.g.*, send remotely) data such as measurement data. Thus, the spectrophotometer may hold data for autonomous local processing in accordance with an integral processor, or the spectrophotometer may transmit the data to the remote processor for assisted processing.

In contrast, Senn is completely devoid of any teaching or suggestion that the spectrophotometer has a dual capability, namely, the ability to process measurement data with or without the assistance of a remote processor. Senn only explicitly teaches that the spectrophotometer transfers (raw or unprocessed) measurement data to the external processor. Senn makes no mention of the need to support selective

autonomous processing by the spectrophotometer as well as the assisted remote processing functionality, for example by providing the spectrophotometer with a switch that controls the transmission of data to a remote processor, as positively claimed by the Applicants' independent claims 1, 15, 23, 24 and 37. Therefore, the Applicants submit that for at least the reasons set forth above, independent claims 1, 15, 23, 24 and 37, as amended, fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Dependent claims 8-11, 22, 24, 30-34 and 43 depend, respectively, from claims 1, 15, 23, 24 and 37 and recite additional features therefore. As such, and for at least the reasons set forth above, the Applicants submit that claims 8-11, 22, 24, 30-34 and 43 are not anticipated by the teachings of Senn. Therefore, the Applicants submit that dependent claims 8-11, 22, 24, 30-34 and 43 also fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

2. Claims 1-48

The Examiner has rejected claims 1-48 under 35 U.S.C. §102(b) as being anticipated by the Jung et al. patent (United States Patent No. 6,373,573, issued on April 16, 2002, hereinafter "Jung"). In response, the Applicants have amended independent claims 1, 15, 23, 24 and 37 from which claims 2-14, 16-22, 25-36 and 38-43 depend, in order to more clearly recite aspects of the present invention. Additionally, the Applicants have cancelled claims 7 and 44-48.

Jung teaches an optical characteristic measuring system, including a measuring device that includes a probe or measurement instrument and a modem. The modem couples the measuring device to a remote central lab that controls, monitors and services the measurement device. In particular, the lab may instruct the measuring device to initiate a diagnostic or test mode and to transmit data generated by the initiated routing to the lab for analysis. In an alternative embodiment, the measurement device stores operational data internally to maintain key components.

The Examiner's attention is directed to the fact that Jung fails to disclose or suggest the novel invention of a spectrophotometer including a switch for selectively

holding data (*e.g.*, for autonomous local processing) or transmitting data (*e.g.*, for assisted remote processing), as claimed in Applicants' independent claims 1, 15, 23, 24 and 37. Applicants' claims have been recited above.

As discussed above, Applicants' invention is directed to a method and apparatus for exchanging color measurement and diagnostic information over a network. Specifically, a spectrophotometer according to the present invention may selectively communicate with a remote processor for diagnostic and measurement purposes; however, the spectrophotometer may also perform these functions autonomously (*e.g.*, without the aid of the remote processor) in accordance with a given mode of operation. To this end, the spectrophotometer further includes a switch that enables the spectrophotometer to selectively "hold" (*e.g.*, save locally) or "transmit" (*e.g.*, send remotely) data such as measurement data.

In contrast, Jung is completely devoid of any teaching or suggestion that the spectrophotometer has a dual capability, namely, the ability to process measurement data with or without the assistance of a remote processor. Jung only explicitly teaches that a single measurement device may be configured for processing in conjunction with a remote lab, or for independent processing. Jung makes no mention of the need to support selective processing (*e.g.*, the capability to choose between two or more potential processing schemes) by the spectrophotometer, for example by providing the spectrophotometer with a switch that controls the transmission of data to a remote processor, as positively claimed by the Applicants' independent claims 1, 15, 23, 24 and 37. Therefore, the Applicants submit that for at least the reasons set forth above, independent claims 1, 15, 23, 24 and 37, as amended, fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

Dependent claims 2-14, 16-22, 25-36 and 38-43 depend, respectively, from claims 1, 15, 23, 24 and 37 and recite additional features therefore. As such, and for at least the reasons set forth above, the Applicants submit that claims 2-14, 16-22, 25-36 and 38-43 are not anticipated by the teachings of Jung. Therefore, the Applicants submit that dependent claims 2-14, 16-22, 25-36 and 38-43 also fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder.

II. VOLUNTARY CLAIM AMENDMENTS

The Applicants have voluntarily amended claims 16 and 17 to correct minor typographical errors. In particular, claim 16 has been amended to remove an additional period and claim 17 has been amended to remove an extraneous comma following the word "calibrated". The Applicants submit that these amendments simply correct typographical errors and do not alter the scope of the amended claims.

III. CONCLUSION

Thus, the Applicants submit that all of the presented claims now fully satisfy the requirements of 35 U.S.C. §102. Consequently, the Applicants believe that all the presented claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Date

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